



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/748,930

12/30/2003

Angel Stoyanov

25277

1937

28624

7590

05/02/2006

WEYERHAEUSER COMPANY  
INTELLECTUAL PROPERTY DEPT., CH 1J27  
P.O. BOX 9777  
FEDERAL WAY, WA 98063

EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/748,930

Applicant(s)

STOYANOV ET AL.

Examiner

Dennis Cordray

Art Unit

1731

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 19 April 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
13. ☒ Other: See Continuation Sheet.

Continuation of 13. Other: Applicant argues on pp 2-3 that the Hansen reference teaches away from using the binders and that the reference states that initial application of the binder preferably occurs after the curing step and that if the binders are present during the curing step they will be consumed during curing and be unavailable for hydrogen bonding or coordinate covalent bonding and binding to particles is ineffective. As discussed in the previous action, the disclosure teaches that both alpha-hydroxy polycarboxylic acids and polyols can cause intrafiber crosslinking (col 34, lines 4-6, 20-28). The disclosure teaches the use of an alpha-hydroxy polycarboxylic acid and a polyol as species for use as a binder (col 4, lines 41-46) and also recites as more preferable species of polyols including glycerins, and species of polycarboxylic acids that include citric acid and tartaric acid, and combinations thereof (col 4, lines 52-59). Clearly Hansen et al teaches the use of the combination of polycarboxylic acid and polyol (polycarboxylic acid in the presence of polyol). Hansen et al prefers the application of the binders after the curing step but does not require it. In fact Hansen et al teaches that the same composition used as a binder can also be used to crosslink the fibers so long as precautions (the fibers should contain at least 20% water) are taken to prevent all of the binder from being consumed during the curing step. The embodiment wherein the binder composition is also used as the crosslinking agent is described in the two paragraphs that follow.

In column 34, lines 20-32, Hansen et al states:

"Hence, in processes that use polycarboxylic acids, polyols and polyamines (which includes both polymeric and nonpolymeric amines having more than one amine group) as binders in the present invention, the fibers should contain at least 20% water (or 20-50% water) by weight if the particles and binder are present in the fibers when curing occurs. The water inhibits covalent bond formation, and prevents all of the binder from being used to form covalent intrafiber crosslinks. Hence, some of the binder remains available to form the non-covalent bonds with the particles and produce ease of densification in fiber products made by the process of the present invention."

In column 53, Example 32, lines 37-53, Hansen et al states:

"The particle binders and particles of the present invention can be added before, after, or simultaneously with curing. The term "curing in the presence of the binder" means that the binder is added before or simultaneously with curing. Curing in the presence of the binder is not usually a problem because the binder cannot always participate in the intrafiber crosslinking reaction, and the binder is not affected by the curing step. In certain situations, however, the binder can also form covalent intrafiber crosslinks. Polycarboxylic acids (such as citric acid), polyols (such as dipropylene glycol) and polyamines (such as ethylene diamine) can function as crosslinking agents, and are consumed during the curing step in the formation of covalent crosslinks. Hence in the limited case in which the crosslinking agent is also a binder material, steps should be taken to prevent the binder from being consumed as a crosslinker in the curing step.

Applicants argue that the Hatsuda reference is not analogous art with respect to the instant application because Hatsuda et al is directed toward water absorbent resin powders while the instant application relates to crosslinking fibers with a polyol and polycarboxylic acid to achieve fiber whiteness. Hatsuda et al was used only to teach that an absorbent product having color values outside of the disclosed L, A and b is not favorable to customers. The reference is analogous because it pertains to color of an absorbent product, whether the product comprises fibers or powder. A person of ordinary skill in the art would obviously seek to provide a product with color properties that make it appealing to customers and Hatsuda et al supplies guidelines for the color.

The remaining arguments with respect to Cook, Hatsuda and Jewell have been addressed in the previous Office Action.

The rejections are maintained.

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700